

PUBLIC SERVICE COMMISSION  
STATE OF MONTANA



Bill Gallagher, Chairman  
Bob Lake, Vice Chairman  
Kirk Bushman, Commissioner  
Travis Kavulla, Commissioner  
Roger Koopman, Commissioner

1701 Prospect Avenue  
PO Box 202601  
Helena, MT 59620-2601  
Voice: 406.444.6199  
Fax #: 406.444.7618  
http://psc.mt.gov  
E-Mail: psc\_webmaster@mt.gov

January 18, 2013

To: Members of the House Federal Relations, Energy and Telecommunications Committee  
From: Montana Public Service Commission  
Re: HB 188 hearing – PSC and NorthWestern Energy charts

At the recent hearing on House Bill 188 (to revise qualifying small power production facility laws), FRET Committee members were understandably confused about two charts that were submitted by witnesses. The Renewable Northwest Project witness distributed a chart he obtained from the PSC website that is part of a larger PSC consumer information document about Northwestern Energy's electric supply rates. The heading on the chart is, "Unit Prices of Selected Sources of NorthWestern's Electric Supply from January 2009 through June 2012" (emphasis added). It shows the varying unit costs of certain selected resource components of NorthWestern's electricity supply portfolio for that time period. The "QF-1" bar of the chart accurately represents the actual average historical unit cost of QF-1<sup>1</sup> projects that have delivered power to NorthWestern since 2009, based on NorthWestern's electricity supply monthly tracker filings with the PSC. The QF Tier II contracts<sup>2</sup> that are included in the supply tracker and the stranded costs associated with those Tier II QFs that are recovered in a separate tariff were not among the supply resources depicted in the chart.

The chart submitted by NorthWestern's witness revises the title of the PSC chart to "Electric Supply and Retail Costs From January 2009 through June 2012" and adds a bar that combines the costs of the QF-1 projects with the cost of the Tier II QFs. It includes a note that says it is unclear how the PSC calculated QF costs in its chart and speculates that the PSC chart deleted the Tier II QF contracts or did not include the Tier II QF stranded costs surcharge. The PSC clarifies that its chart did not depict, and did not purport to depict, Tier II QF costs. Tier II QF contracts represent pre-electric utility deregulation and re-regulation era QF policies. QF-1 contract prices reflect current PSC QF policy. HB 188 would affect QF-1 policies going forward and would have no effect on Tier II QFs.

Witnesses also discussed the amount of energy provided by QFs relative to other supply resources. The Renewable Northwest Project witness testified that QF-1 QFs provide 0.19% of NorthWestern's supply portfolio. This figure is correct based on the energy produced from

<sup>1</sup> "QF-1" refers to QF contracts other than Tier II that are administered under NorthWestern's QF-1 standard rate tariff. Under current PSC rules, a QF project must be 10 MW or less in size to be eligible for the QF-1 standard rate.

<sup>2</sup> "QF Tier II" refers to contracts entered into before 1999 that were part of the Tier II settlement in 2002. The major contracts in this group are Colstrip Energy Limited Partnership (CELP), Yellowstone Energy Limited Partnership (YELP), and Broadwater Dam.

PSC letter re: HB 188 charts

January 18, 2013

Page 2

January 2009 through June 2012. Again, the figure depicts the more recent QF-1 projects, not the pre-deregulation era Tier II QFs. The PSC expects that in 2013 QF-1 projects will represent about 2-3% of NorthWestern's supply portfolio.<sup>3</sup> In 2013, Tier II QFs will represent approximately 12% of the portfolio.

The prices available to QFs through standard rates set by the PSC vary over time as market conditions and the cost of supply alternatives available to NorthWestern change. Under NorthWestern's current, PSC-approved standard rates, a 10 MW wind QF would be paid an average rate of \$47.77 per MWh, after accounting for the cost of integration service. The PSC expects that the average cost of energy from NorthWestern's QF-1 resources will increase in the 2013-2014 period to about \$66.00 per MWh as projects that entered contracts based on prior vintages of the QF-1 tariff begin generating electricity.

We hope this letter helps to clear up any confusion that resulted from the two charts. Please contact PSC Rate Analyst Will Rosquist (444-6359; wrosquist@mt.gov) with any questions.

---

<sup>3</sup> The PSC estimated the QF-1 share of NorthWestern's 2013 supply portfolio based on information in NorthWestern's 2011 Electricity Supply Resource Procurement Plan and Its January 2012 Monthly Electric Supply Cost Rate Adjustment filing.

# **ELECTRIC SUPPLY AND RESIDENTIAL RATES OF NORTHWESTERN ENERGY**

Prepared By:

Jason T. Brown  
Montana Public Service Commission  
1701 Prospect Ave.  
Helena, MT 59601  
(406) 444-6187  
[jbrown4@mt.gov](mailto:jbrown4@mt.gov)

# Table of Contents

Introduction .....	3
Components of Electric <b>Supply</b> .....	5
Historic Electric <b>Supply</b> .....	6
Components of Residential Electric “ <b>Supply Rate</b> ” .....	7
Historic Residential Electric “ <b>Supply Rate</b> ” .....	8
Components of Total Residential Electric <b>Rate</b> .....	9
Historic Total Residential Electric <b>Rate</b> .....	10
<b>Unit Prices</b> of Selected Sources of Electric Supply .....	11
Colstrip Unit 4 Unit Price .....	12
Judith Gap Unit Price .....	12
Short Term Fixed Unit Price .....	13
Spot Market Unit Price .....	13

# Introduction

The following graphs show the electric supply, residential electric rates and unit prices of NorthWestern Energy (NorthWestern), *adjusted for inflation*. This information is available in published tariffs and regular dockets at the Montana Public Service Commission (PSC).<sup>1</sup>

Since 1998, customers purchasing electric supply from NorthWestern or its predecessor have paid an electric rate in dollars-per-kilowatt-hour (\$/kWh) consisting of at least three sub-rates: (1) A distribution delivery service (**distribution**) rate; (2) a transmission delivery service (**transmission**) rate; and (3) an electric supply rate. Whereas the transmission and distribution rates pay for the wires and poles that transmit electrical energy, the supply rate pays for the electrical energy (**supply**) itself.

NorthWestern has long-term contracts to buy supply from PPL Montana, LLC, (**PPL**) which owns coal-fired plants and hydroelectric dams; Citigroup Energy, Inc. (**Citigroup**), which provides a standard 25-megawatt quantity; Invenery, LLC, which owns a wind farm (**Judith Gap**) in Wheatland County; and "qualifying facilities"<sup>2</sup> that contracted with NorthWestern (**QF-I**) or its predecessor the Montana Power Company (**QF-II**).<sup>3</sup>

Although NorthWestern enters long-term contracts to buy most of its supply, it also makes short-term purchases up to eighteen months in advance (**short term fixed**) or only an hour in advance on the open market (**spot market**).

Since January 2009, NorthWestern has generated some of its own supply at a coal-fired power plant it owns in Colstrip, Montana (**Colstrip Unit 4**).<sup>4</sup> It has also operated the Dave Gates Generating Station (**Dave Gates**) since January 2011.<sup>5</sup> The primary function of Dave Gates is not to provide supply, but rather "the reserve capacity necessary to maintain transmission system reliability and balance on a moment to moment basis as customer demand and available resources fluctuate."<sup>6</sup> Its 40-megawatt Spion Kop wind farm (**Spion Kop**) began producing power in December 2012.<sup>7</sup>

As a wind farm, Judith Gap is one of the resources that fluctuates, and may require as much as a quarter of Dave Gates' current capacity to level some of its fluctuation. Because this cost is attributable to Judith Gap, *the graphs show about a quarter of the current cost of Dave Gates allocated to Judith Gap.*

In the first six months of 2012, NorthWestern also purchased (**other**) supply from the U.S. Bureau of Reclamation, which owns Tiber Dam, Turnbull Hydro, LLC, which owns a 13MW "community renewable energy project," and Basin Creek Equity Partners, LLC, which operates a natural gas-fired power plant near Butte.

At the time of deregulation, the Montana Legislature mandated a Universal System Benefits (**USB**) rate, which annually collects 2.4% of NorthWestern's 1995 retail sales revenue "to ensure continued funding of and new

<sup>4</sup> See PSC Ord. 6925f p. 65 (Nov. 13, 2008).

<sup>5</sup> See PSC Ord. 6943a p. 62 (May 19, 2009).

<sup>6</sup> NorthWestern Bill Insert, p. 1 (Jan. 2011).

<sup>7</sup> See PSC Ord. 7159l pp. 40-41 (Feb. 14, 2012).

<sup>1</sup> See e.g. PSC Dockets D2011.5.38 & D2010.7.74.

<sup>2</sup> See 16 U.S.C. §§ 824a-3, 2601 *et seq.* (2012).

<sup>3</sup> As shown on graphs, another QF-II rate is added to the supply rate.

expenditures for energy conservation, renewable resource projects and applications, and low-income energy assistance."<sup>8</sup> NorthWestern uses a portion of USB funds for conservation and efficiency efforts.

Additionally, NorthWestern has managed a larger, more cost-effective portfolio of conservation and efficiency programs since 2004. Funded through the electric supply rate, these programs are referred to as demand-side management (**DSM**).

The PSC has approved four \$/kWh rates<sup>9</sup> that enable NorthWestern to earn a reasonable profit on certain investments. USB and DSM efforts to reduce the number of kWh sold would in turn reduce these approved profits if NorthWestern could not collect what it would have collected anyway (**Lost Revenue**) had it not encouraged conservation and efficiency.

Whenever supply is moved across power lines, some is lost in the form of heat and electromagnetic energy (**Line Losses**). To set the transmission, distribution and supply rates, NorthWestern assumes a loss factor for each customer class. For example, it assumes that 8.5% of the supply delivered to its system is lost before reaching residential customers. The graphs on pages 9 and 10, which show electric supply for all classes of customers, reflect a system average loss factor of about 7.5%.

Although the Montana Legislature sets the total budget of the Montana Consumer Counsel and PSC, the money is collected through rates (**MCC & PSC Funding**). NorthWestern also recovers carrying costs, certain transmission costs, and third-party administrative costs

(**Administrative, etc.**) through the electric supply rate. Finally, it applies a monthly rate adjustment (**Cap**)<sup>10</sup> so that the percentage rate increase for each customer class is no greater than the residential customer rate class increase."<sup>10</sup>

The Bonneville Power Administration's residential exchange credit (**BPA Credit**) shares the benefits of low-cost federal hydropower with NorthWestern customers. As the marketing agency for electricity generated at federally-owned dams on the Columbia River, BPA provided inexpensive supply to the region until the 1970s, when increasing demand forced it to not renew contracts with certain utilities. "In order to avoid an energy crisis and to redress BPA's diminishing ability to satisfy the region's power demands," Congress created the residential exchange program to spread the benefits regionally.<sup>11</sup>

The deferred supply rate (**Deferred Rate**) corrects for over- or under-collections of supply costs on which NorthWestern does not earn a profit, and may therefore be positive or negative.<sup>12</sup>

Finally, the only component of the residential rate that does not appear on pages 5 and 6 is the discount for certain retired NorthWestern employees, whose personal consumption NorthWestern reduces by forty percent before calculating supply rates. This employee discount partially shifts costs to the other nine classes of customers, but for residential customers it accounts for only about \$0.02 of the roughly \$60 per-megawatt-hour supply rate.

---

<sup>10</sup> PSC Docket D2011-5-38 Application, CAH-11 (June 2, 2011).

<sup>11</sup> See *Portland Gen. Elec. Co. v. BPA*, 501 F.3d 1009, 1014 (9th Cir. 2007); as shown on graphs, the BPA Credit is added to supply rate.

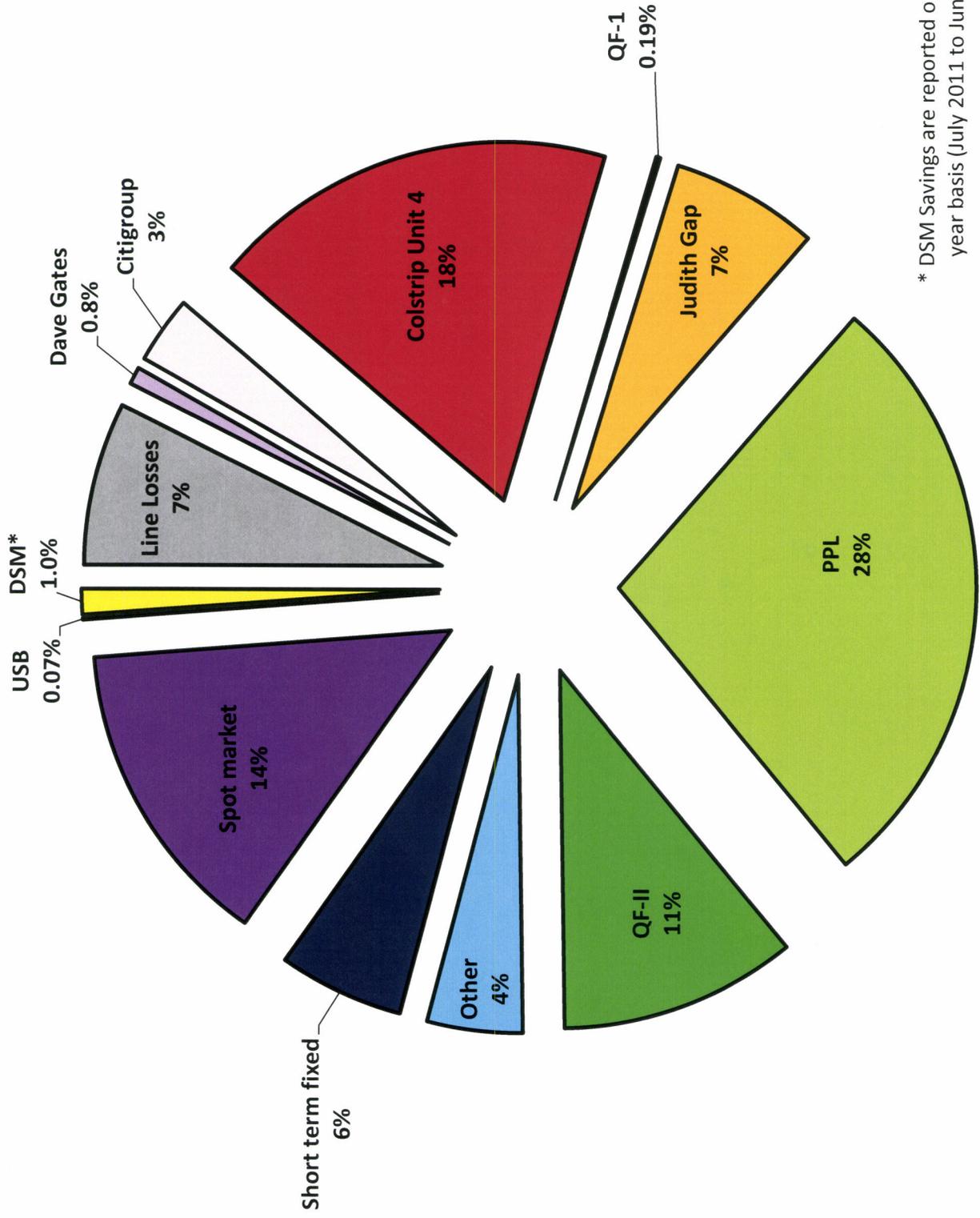
<sup>12</sup> As shown on graphs, the Deferred Rate is added to supply rate.

---

<sup>8</sup> Mont. Code Ann. § 69-8-402 (2011).

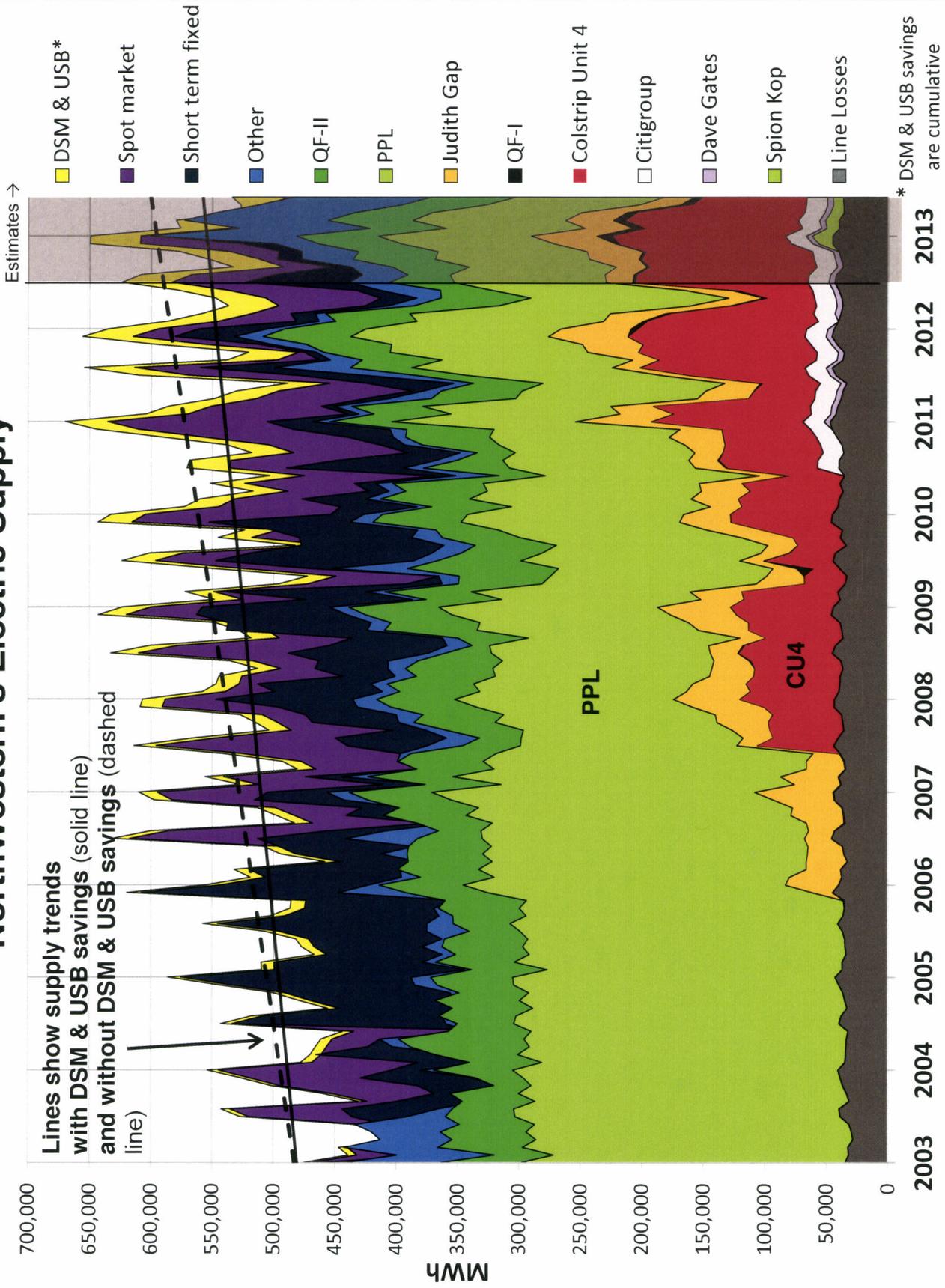
<sup>9</sup> The transmission, distribution, Colstrip Unit 4 fixed and Dave Gates fixed rates.

# Components of NorthWestern's Electric Supply in 2011

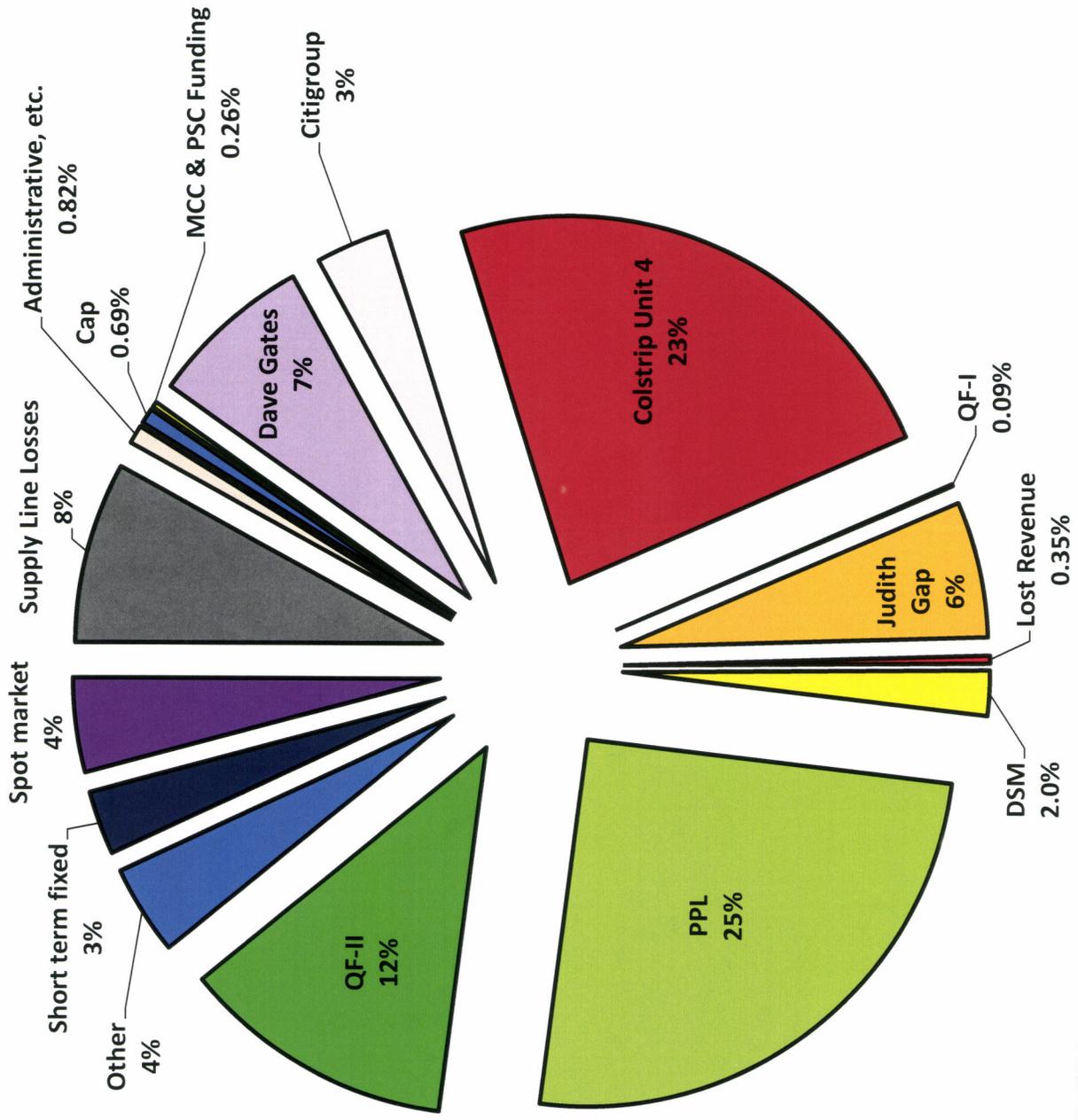


\* DSM Savings are reported on a tracker year basis (July 2011 to June 2012)

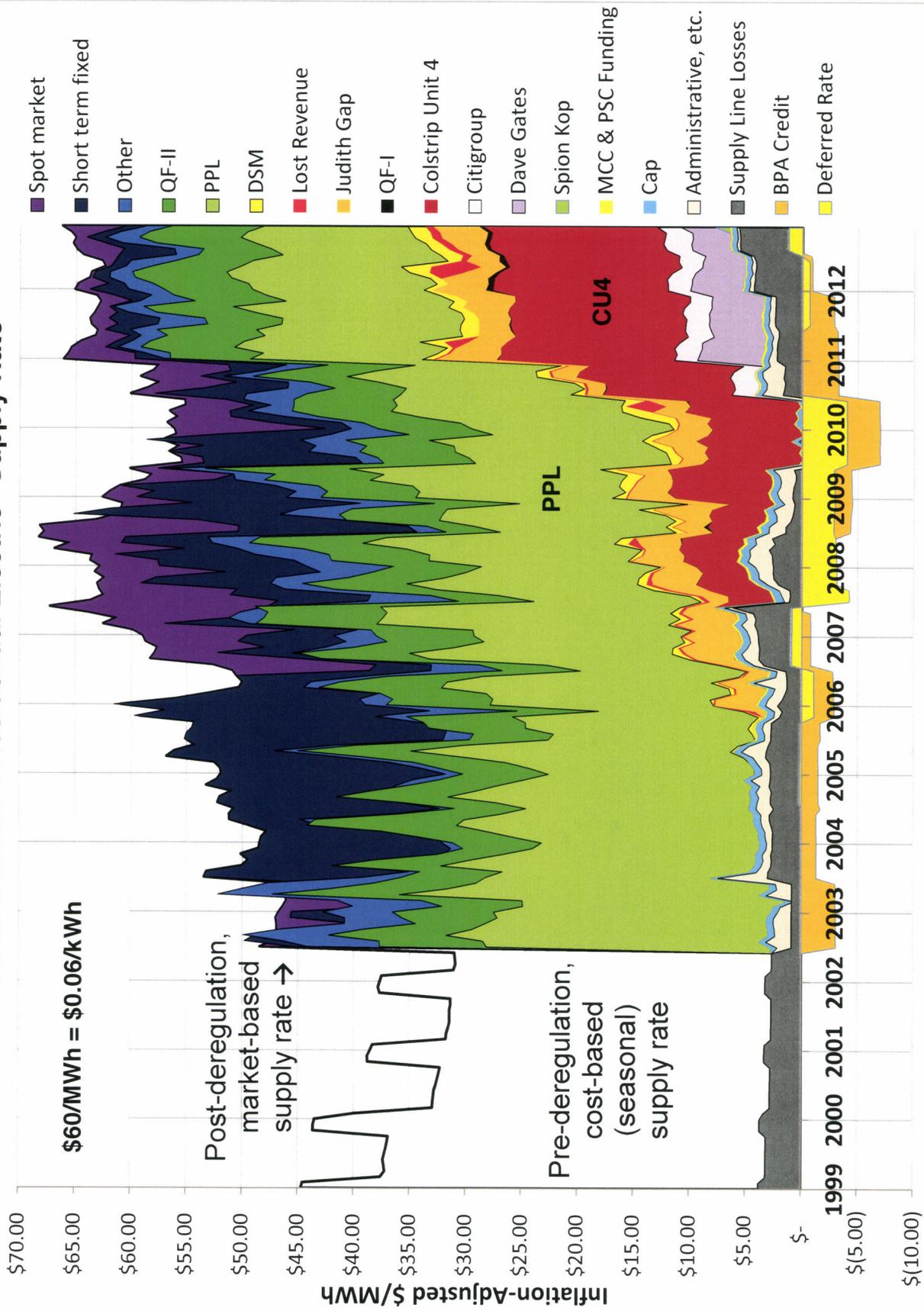
# NorthWestern's Electric Supply



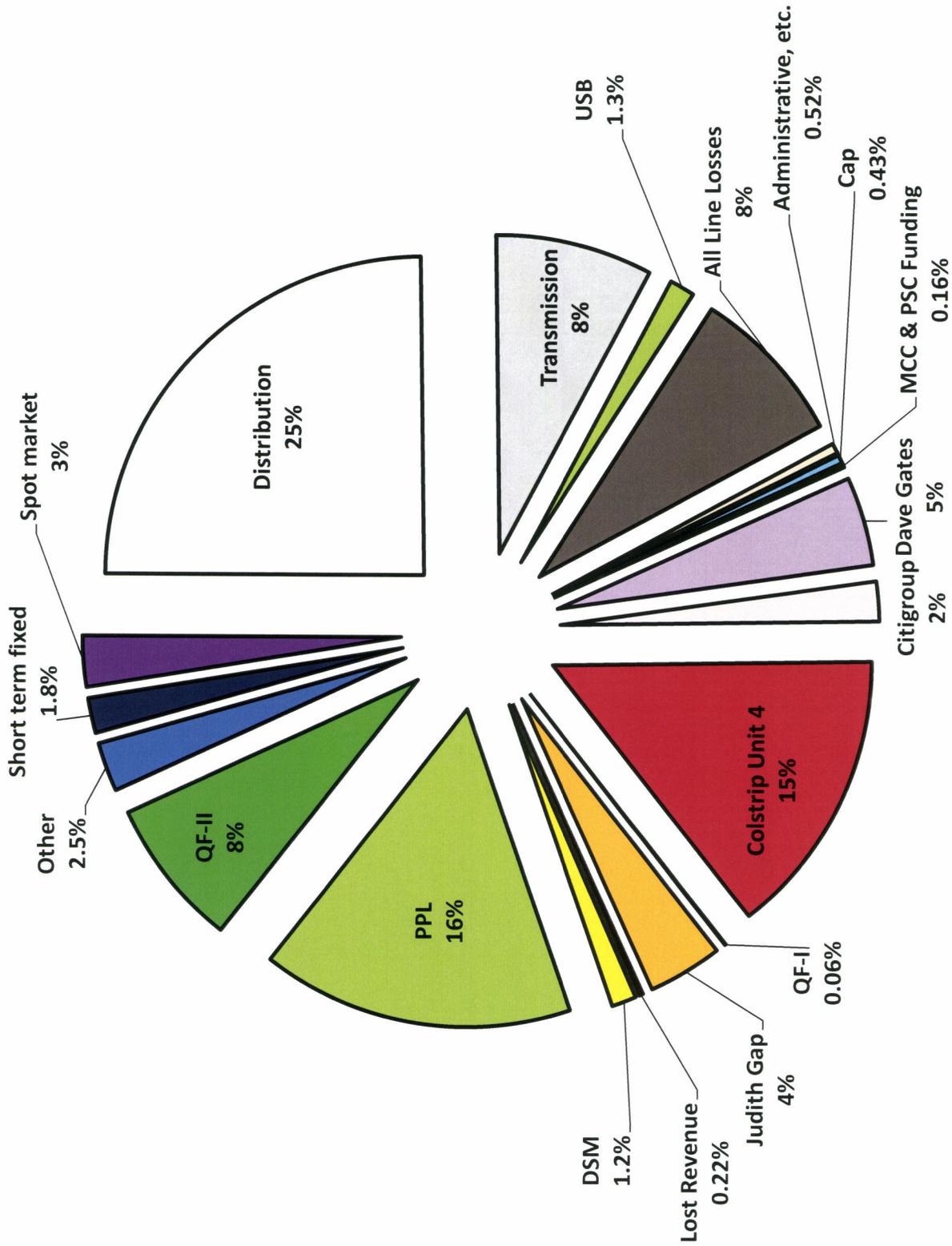
# Components of NorthWestern's Residential Electric "Supply Rate" in 2011



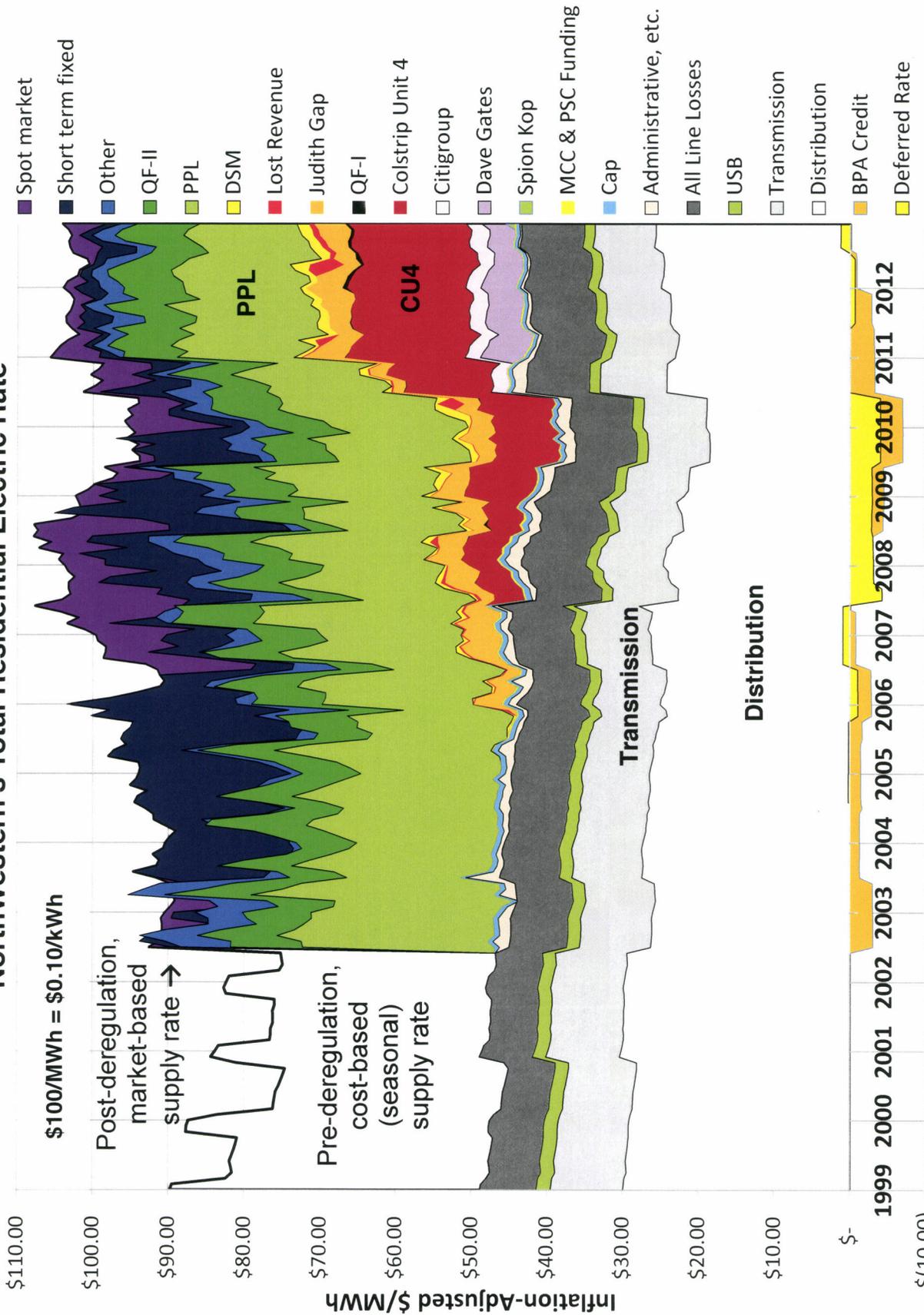
# NorthWestern's Residential Electric "Supply Rate"



# Components of NorthWestern's Total Residential Electric Rate in 2011

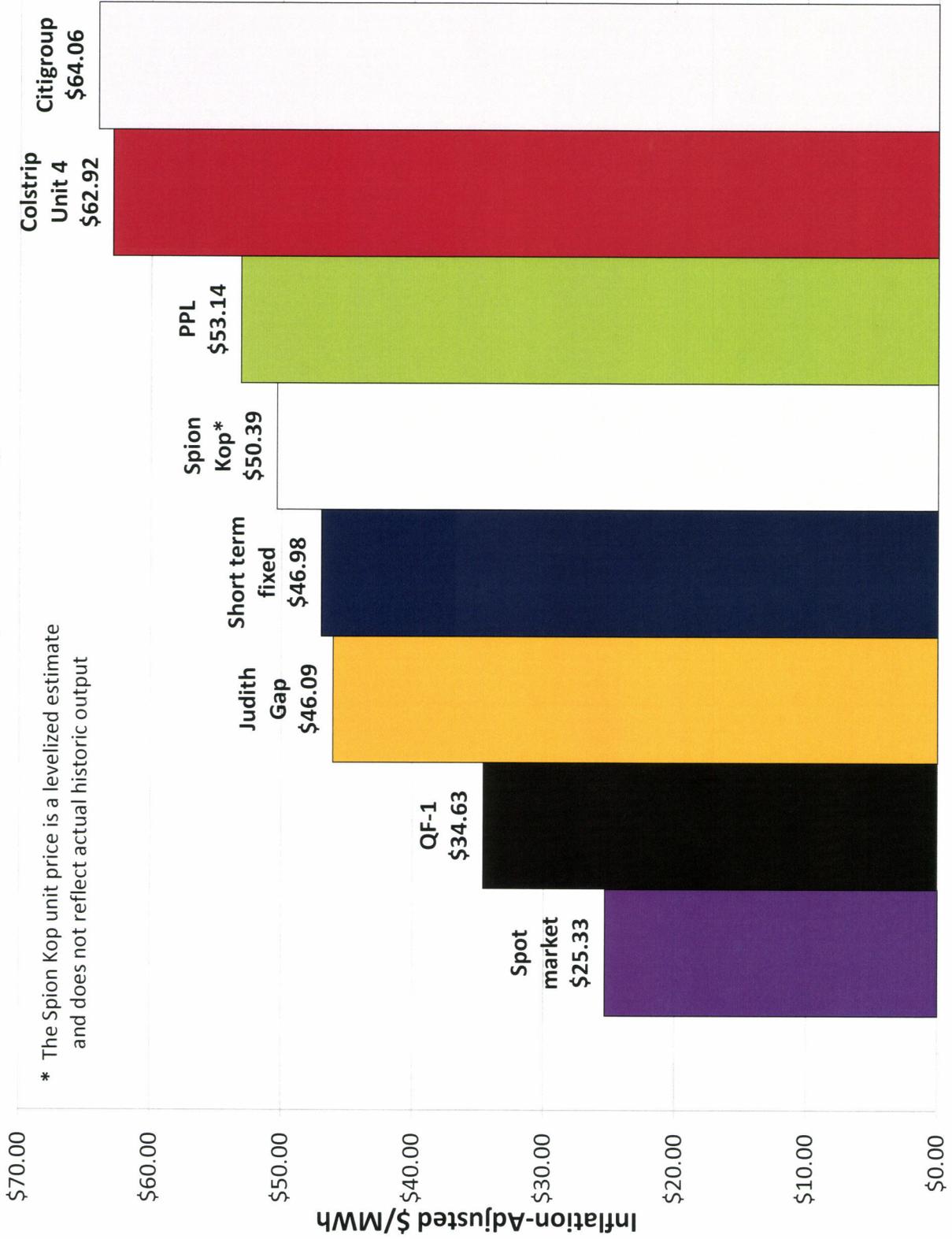


# NorthWestern's Total Residential Electric Rate\*

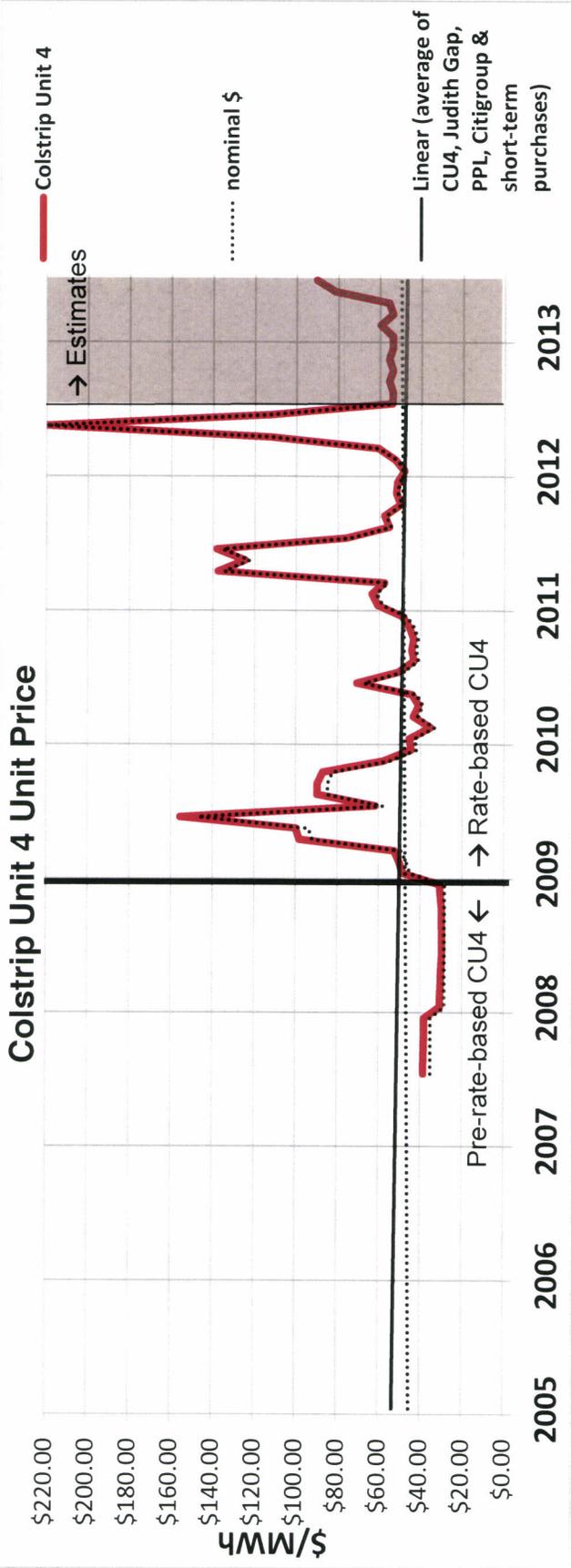


\* Residential rate charged per-kilowatt-hour in addition to a fixed \$5.05 per-month customer service charge

# Unit Prices of Selected Sources of NorthWestern's Electric Supply from January 2009 through June 2012



### Colstrip Unit 4 Unit Price



### Judith Gap Unit Price

